



Queensland University of Technology
Brisbane Australia

This is the author's version of a work that was submitted/accepted for publication in the following source:

[Davis, Julie M.](#) (2013) International trends in early childhood education for sustainability. In Inoue, Michiko (Ed.) *Perspectives on Early childhood Education for Sustainability*, Association for Children's Environment, Japan, Doshisha Women's College of Liberal Arts.

This file was downloaded from: <http://eprints.qut.edu.au/60330/>

© Copyright 2013 [please consult the author]

Notice: *Changes introduced as a result of publishing processes such as copy-editing and formatting may not be reflected in this document. For a definitive version of this work, please refer to the published source:*

International Trends in Early childhood Education for Sustainability

Associate Professor Julie Davis

Dip. Teach, B.Sc (Envir. Studies), M. Envir. Ed., PhD

School of Early Childhood, Queensland University of Technology (QUT)

April 2013, Japan

Introduction

Early childhood education for sustainability (ECEfS) is an emerging field within education – a synthesis of early childhood education and education for sustainability. As a distinct field of educational inquiry and practice, it is less than 20 years old in Australia. My personal story is one that emerged from teaching Aboriginal children in an Indigenous community. These experiences made me question the marginalization of Indigenous peoples in Australian society, the colonizing impacts of education, gave me deeper understandings of human-environment interactions, and the effects of poverty and powerlessness on options for Indigenous people in Australia and elsewhere where people and their lands have been exploited. These experiences saw me return to university to undertake a degree in environmental studies to help me better understand the nexus between society, environment and economy. Hence my background in education for sustainability comes as much from the social sciences as from the biological/ecological sciences and shapes my orientation to my work in ECEFS.

Later, while working in the School of Early Childhood at QUT, I was in a position to bring together my interests in education and environment through studying for a Masters of Environmental Education. This was followed by a doctorate that focused on whole school change for environmental education (EE). Throughout these study periods, I was also teaching early education curriculum to preservice teachers and sought to embed principles of sustainability into this work through my specialist areas of social studies and science education. Central to this work was the idea of **children as active citizens for sustainability**. Education for sustainability then, is less about children playing and learning in nature, but is more about young children's contributions to sustainability. This orientation shapes all further discussions and is the foundation on which I build the rest of this paper.

Environmental education/ Education for sustainability?

It is impossible to discuss education for sustainability without first outlining its evolution from environmental education. The term 'environmental education' emerged in the 1960s and was defined by the Tbilisi Declaration in 1977 as a comprehensive lifelong education that should be responsive to changes in a rapidly changing world. 'It should prepare the individual for life through an understanding

of the major problems of the contemporary world, and the provision of skills and attributes needed to play a productive role towards improving life and protecting the environment with due regard to ethical values' (UNESCO, 1978, p.1). In practice, environmental education has tended to focus on 'green' issues such as nature conservation and the promotion of human connections with the natural environment. However, re-examination of the Tbilisi Declaration suggests that its original intention does, in fact, align with 'education for sustainability'. In effect, the change in terminology from environmental education to education for sustainability (EfS) seeks to redress the perceived 'greenness' of environmental education and focuses attention more explicitly on pedagogies that promote humans as agents of change.

In Australia, initiatives that provide pedagogical support for the implementation of EfS are the international UNESCO *Decade of Education for Sustainable Development* (2005-2014), the *National Environmental Education Statement for Schools in Australia* (2005) and *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability* (2009). These documents also provide curriculum principles and strategies that imply a pedagogical advantage in early childhood education with respect to EfS (Davis & Elliott, 2009). The *National Environmental Education Statement for Schools* (2005), for example, suggests experiential learning, values clarification, creative thinking, problem solving, storytelling and inquiry learning as important in EfS, while the UNESCO document cites the following key education principles as pivotal: interdisciplinary and holistic, values-driven, critical thinking and problem solving, multi method, participatory decision making, applicability, and locally relevant. Both sets of principles clearly align with early childhood pedagogy and suggest that what is required is deeper understanding of the links and similarities between education for sustainability pedagogies and early childhood pedagogies.

Drawing on these similarities, I propose a description of *early childhood education for sustainability*. Early childhood education for sustainability is an approach to early education that is underpinned by *both* humanistic and ecological values. It aims to empower children (and the adults within their early childhood settings and homes) to explore and change ways of thinking, being and acting in order to minimise environmental impacts and to enhance environmentally and socially sustainable practices.

Background of ECEfS in Australia

International reviews of ECEfS show that the early childhood education field has been slow to engage with thinking and practice around sustainability, despite uptake by other educational sectors. In the only national review of early childhood environmental education in Australia (the 2003 report

'Patches of Green'), green patches were described as 'exemplary individuals, organisations and centres that share a passion and commitment to the importance of early childhood environmental education' (NSW EPA, 2003, p. 1). These green patches were found to be localised, disconnected, with limited support, resources or research, and rarely acknowledged within environmental education or the early childhood fields. It is interesting to note that the first conference presentation in Australia on ECEfS was only as recent as 1999, when myself and three colleagues presented a symposium entitled *Early Childhood Environmental Education: Mainstream not Marginal* at the annual Australian Association for Environmental Education conference.

To understand why the early childhood education sector in Australia took a long time to develop, it is important to understand the Australian political landscape. Australia is a federation, a collection of seven states and territories. Each state has its own government that is responsible for matters such as health, education, and welfare. We also have a national government that provides most of the funding to the states, and also delivers health, education and welfare services. Until recently, the states were quite independent in their programs and service delivery approaches. For example, there were different curricula, and in some states, no curricula for before-school early childhood education. Additionally, within each state, there is a wide range of providers of early childhood education services, from state-run preschools to private for-profit centres, some church-run services and others managed by community associations such as *C&K Preschooling Professionals* that has its roots in philanthropy and social welfare, reaching back 100 years. In other words, the landscape for early childhood education has been haphazard and fragmented which has made it difficult to generate interest in a new area such as education for sustainability. Nevertheless, in the last 5 years, new national policy initiatives that I will discuss later have significantly enhanced engagement with ECEfS in Australia.

To summarise, it has been mostly through state-based activities that the lobbying, advocacy and professional development in early childhood education for sustainability has occurred. This has been mainly through collaborative networks of teachers, teacher educators, centre directors, environmental educators, parents and others with an interest in early childhood education and environmental/sustainability matters. The first of these networks, that has recently celebrated its 20th anniversary, was established in 1992 in Victoria, with a seeding grant of \$300. The second was in Queensland in 1995, started by myself and a colleague, and the third was established less than a decade ago in New South Wales. Each of these organisations has worked to build interest in early childhood education for sustainability, with key activities being the sharing of resources, practices and teachers'

stories of change through weekend visits to centres, turning later to lobbying to raise the profile of early childhood education for sustainability, using "mainstream not marginal" as the catch cry to position environmental education as mainstream in both early childhood education and in environmental education. There is now also a loose association between these three networks, with the aim of establishing a stronger national advocacy platform. In addition to these three networks, the *Australian Association for Environmental Education (AAEE)* established a Special Interest Group in 2003 that keeps environmental educators in touch with early childhood events and perspectives.

Fortunately, too, our national early childhood professional association, *Early Childhood Australia*, has been a strong supporter during this mobilization period, supporting our initiatives through conference strands in EE/EfS and provided outlets and publicity for papers, booklets, web resources and other publications through its national membership.

Policy drivers for ECEfS in Australia

After its slow and piecemeal start, there are now a number of key policy drivers that support early childhood education for sustainability in Australia. The first of these is the new national framework for early childhood education curriculum, the 2009 *Early Years Learning Framework (EYLF)*. Even though it is not strong in emphasising sustainability, submissions from early childhood education for sustainability advocates during its development ensured that 'environmental responsiveness' is a stated outcome of learning, as well as children learning about "interdependence between humans, flora, fauna and the land". Fostering appreciation and respect for the natural environment, as a precursor to taking responsibility, is also recognised as the following reveals:

An integrated, holistic approach to teaching and learning also focuses on connections to the natural world. Educators foster children's capacity to understand and respect the natural environment and the interdependence between people, plants, animals and the land. (p. 14)

In relation to children as active learners, this is a general idea that is embedded within the overall framework. In summary, though, the EYLF offers just a taste of early childhood education for sustainability.

What is more exciting is the Australian Children's Education and Care Quality Authority's 2011 *National Quality Framework* and its *Guide to the National Quality Standard* (which is underpinned by

national law and regulations). The *National Quality Standard* sets a new national benchmark for the quality of education and care services. There are seven quality areas:

- Educational program and practice
- Children's health and safety
- Physical environment
- Staffing arrangements
- Relationships with children
- Collaborative partnerships with families and communities
- Leadership and service management

Quality Area 3, through its focus on the physical environment, makes direct reference to sustainability. The standard asks that "the service takes an active role in caring for its environment and contributes to a sustainable future" (p. 83). There are two aspects to be considered:

- **Element 3.3.1** Sustainable practices are embedded in service operations
- **Element 3.3.2** Children are supported to become environmentally responsible and show respect for the environment

Recognition that sustainability is a measure of quality in early childhood services has meant that there is growing interest from teachers who now must apply these standards to their programs and who are seeking professional learning for this task. This has opened up new opportunities for inservice education across Australia, with much of this being organised by the networks mentioned earlier.

Preservice teacher education

Another key area of change in relation to education for sustainability in Australia is preservice teacher education, including early childhood teacher education. Teacher education is responsible for creating the next generation of teachers; teacher education, however, has lagged behind other education sectors in embedding sustainability concepts and practice. This, too, is changing. For example, in 2012 I co-led in a nationally funded project involving all eight Queensland universities aimed at embedding education for sustainability into preservice teacher education programs. The key outcome of the project is the redesign of courses with a stronger education for sustainability focus. An aim, too, was to widen the participation of academics from discipline areas not usually associated with education for sustainability. Thus, in addition to the usual interest from science and geography specialists, we have involvement from Arts, literacy and technology educators. Innovative subjects, new kinds of

assessment, and stronger links between community and university are now being developed. This project has also created a national network of teacher educators with a focus on sustainability.

- **Lone Pine Project**

One example of a teacher education innovation that has recently commenced at my university is a project linking academics and students from the School of Early Childhood, School of Design (architects, landscape designers and industrial designers) with staff from the Lone Pine Koala Sanctuary. In this project, early childhood preservice teachers work with School of Design students to design a childcare centre for the koala sanctuary to be built using sustainable design principles and quality early childhood education for sustainability. While the project at this stage is still in its early days, the sanctuary has a vision for a world-class early learning centre that is child-friendly, animal-friendly and has low environmental impact. The bringing together of early childhood education and design students with a real-life site has great potential for extending the learning and skills of all involved, and offers a new model for teacher education.

The International Scene

The ECEfS work of educators in Australia has also been supported by accelerating international activity. New Zealand, for example, has a strong early childhood education for sustainability presence, paralleling that of Australia. Between Australia and New Zealand there have been 3 early childhood EE/EfS conferences, in Christchurch in 2006, Sydney in 2007, and Melbourne in 2009. The New Zealand early childhood national curriculum, *Te Whariki*, supports education for sustainability principles through its focus on respect for the Maori, the first peoples of New Zealand.

Australia also has international connections with Sweden where Professor Ingrid Pramling Samuelsson, as *UNESCO Chair in Early Childhood Education and Sustainable Development* and *World President of the World Organisation for Early Childhood Education (OMEP)*, has shown leadership of the early childhood education for sustainability agenda. This has been through hosting international workshops in 2007 and 2008 that led to the international report *The Contribution of Early Childhood Education to a Sustainable Society (2008)* and the *Gothenburg Recommendations on Education for Sustainable Development (2008)* that identified early childhood as ‘a natural starting point for ESD’ (p.7). Through conference strands in education for sustainable development that started in 2010 and through OMEPs *International Journal of Early Childhood*, which had a special edition dedicated to EfS in 2009, the number of dissemination outlets for discussion of ECEfS continues to expand. It is important to note that the orientation of ECEfS that is promoted through

UNESCO and OMEP aligns with an activist form of EfS rather than simply promoting nature or environmental education.

In Asia, too, interest and activity in EE/EFS in early childhood is expanding quickly. OMEP, for example, hosted its annual Asia-Pacific conference in Singapore in 2009 on the theme of ECEE. Last year, with impetus from the green growth drive of the Korea government, which supports the preschool sector to join in EE activities, a conference was held on this topic. This conference in Japan is evidence of emerging interest amongst the Japanese ECE sector in matters of ESD. In July, the 2013 OMEP international conference will be held in Shanghai, with an EfS conference strand. This provides rich opportunities for early childhood professionals and academics in Asia to exchange ideas and research with international scholars, in a country and a region with significant environmental and sustainability challenges.

Additionally, in 2010 and 2011, I had the privilege of working with international colleagues in the *Transnational Dialogues in Research in Early Childhood Education for Sustainability*. These two workshops provided opportunities for sharing ideas and perspectives with colleagues from Norway, Sweden, New Zealand, Korea, Japan and Singapore. They also focused on building research capacity by including doctoral students, our next generation of early childhood education for sustainability researchers. An outcome of these meetings is publication of an edited research book, the first in the world, to be available in 2014. This will present theories, perspectives, practices and challenges in early childhood education for sustainability. The field is now truly on the international stage and pushing the boundaries of both early childhood education and education for sustainability.

What next?

As I have illustrated, early childhood education for sustainability in Australia and internationally is at an exciting point. Years of advocacy by a small band of committed individuals, and the activities of collaborative networks in bringing like-minded people together are beginning to pay off. We are at a place where policy is catching up with the desires of the community, and is now helping to scale-up the reform process.

However, all of us need to keep doing what we are doing, and more. One area of need is for more research to reveal what we do, and why, to inform quality practice and to expose current practice to critique so that better curriculum and pedagogies can emerge. We need to build researchers and research capacity in early childhood education for sustainability, and to publish our findings widely.

This is particularly important as there is such a low base of research in ECEfS. In 2009, I published a paper that reported on 12 years of journal papers in early childhood education and education for sustainability. Fewer than 5 percent were about early childhood education for sustainability, and most were about children in nature; virtually none were about children as active citizens for sustainability. Overall, though, I have seen a consistent rise in the number of research papers about early childhood education for sustainability in peer-reviewed journals in Australia and internationally in the past five years. This is a big step forward.

Conclusion

As discussed at the beginning of this paper, the underpinning framework of my approach to early childhood education for sustainability is children as active citizens; I believe this orientation is vital if humanity is to avert the crises of sustainability. Young children deserve rich, diverse opportunities to play in, engage with, and understand nature and natural processes. They also deserve, however, to be engaged in learning, decision-making and action-taking in their kindergartens, homes and communities on topics pivotal to their wellbeing in the present and in the future. As educators with an interest in the welfare of young children, we are in a position to lay strong foundation for sustainable living. To do this, we need to rethink what children are capable of, and rethink our pedagogies so that children have plenty of opportunities to collaborate and take action for the environment. As teachers and academics, we need to work together to share ideas and resources, to network and advocate for education for sustainability in our daily practices, our organisations and institutions. Together, we can make a difference for ourselves, our future, for young children, and for the Earth.

References

- Australian Children's Education and Care Quality Authority. (2011) *Guide to the National Quality Standard*. Accessed 22 August, 2012 from <http://acecqa.gov.au/storage/3%20-%20Guide%20to%20the%20National%20Quality%20Standard%20FINAL.pdf>
- Australian Government Department of the Environment and Heritage. (2005). *Educating for a sustainable future: A National Environmental Education Statement for Australian Schools*. Accessed 22 August, 2012 from <http://www.environment.gov.au/education/publications/sustainable-future.htm>
- Australian Government Department of the Environment, Water, Heritage and the Arts. (2009). *Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability* (2009) Accessed 22 August, 2012 from <http://www.environment.gov.au/education/publications/pubs/national-action-plan.pdf>
- Australian Government Department of Education, Employment and Workplace. (2009). *Belonging, Being & Becoming: The Early Years Learning Framework for Australia*. Accessed 22 August, 2012 from http://www.deewr.gov.au/Earlychildhood/Policy_Agenda/Quality/Documents/Final%20EYLF%20Framework%20Report%20-%20WEB.pdf

- C&K Preschooling Professionals. (2011). *Building waterfalls teaching and learning guidelines*. 2nd edition. C&K: Brisbane.
- Davis, J. & Elliott, S. (2003). *Early Childhood Environmental Education: Making it Mainstream*. *Early Childhood Australia*.
- Davis, J. & Elliott, S. (2009) Exploring the resistance: an Australian perspective on educating for sustainability in early childhood. *International Journal of Early Childhood*, 41(2), pp. 65-77.
- Davis, J. (2009). Revealing the research 'hole' of early childhood education for sustainability: a preliminary survey of the literature. *Environmental Education Research*, 15, 227-241.
- Davis, J. (2010). *Young Children and the Environment Early Education for Sustainability*. New York, US: Cambridge University Press.
- New South Wales Environmental Protection Agency. (2003). *Patches of Green: Early childhood environmental education in Australia*. Accessed 22 August, 2012 from <http://www.penrithcity.nsw.gov.au/uploadedFiles/patchesofgreen.pdf>
- New Zealand Ministry of Education. (1996). *Te Whariki: Early Childhood Curriculum*. Ministry of Education: Wellington.
- UNESCO. (1978). *Tbilisi Declaration*. Accessed 22 August, 2012 from <http://www.qdrc.org/uem/ee/tbilisi.html>
- UNESCO. (2005). *Decade of Education for Sustainable Development*. Accessed 22 August, 2012 from <http://www.unesco.org/new/en/education/themes/leading-the-international-agenda/education-for-sustainable-development/about-us>